

SEQUENCE LISTING

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Packard, Beverly

<120> COMPOSITIONS FOR THE DETECTION OF ENZYME ACTIVITY IN BIOLOGICAL SAMPLES AND METHODS OF USE THEREOF

<130> 300-903820US

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<151> 1998-02-20

<150> US 08/802,981

<151> 1997-02-20

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<170> PatentIn version 3.0

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Gly Tyr

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Tyr
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 Gly Tyr
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Gly Tyr

<210> 59

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Gly Tyr

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<210> 62

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Tyr

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Tyr

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Lys Gly Tyr

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Lys Gly Tyr

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  Lys Gly Tyr
  <210> 75
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Lys Gly Tyr

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Lys Gly Tyr

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Gly Tyr

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Gly Tyr

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Gly Tyr

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Lys Gly Tyr

<210> 83

<211> 19

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- Lys Gly Tyr
- <210> 85
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Gly Tyr

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<210> 91

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Pro Lys Gly Tyr
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Pro Lys Gly Tyr

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Pro Lys Gly Tyr 20

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<211> 17

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<223> X is epsilon aminocaproic acid

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Tyr

<210> 102

<211> 17

<212> PRT

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<223> M is D form

<220>

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<223> X is epsilon aminocaproic acid

<400> 102

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Tyr

<210> 103

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<211> 17
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<212> PRT

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<400> 103

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Tyr

<210> 104

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Tyr
<210> 105
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<211> 16

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<210> 106

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1 10 15

Tyr

<210> 107

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<400> 108

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<210> 109

<211> 11

<212> PRT

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<220>

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<223> D is blocked with Fmoc

<400> 109

Asp Pro Thr Gly Arg Thr Gly Pro Lys Gly Tyr 1 5 10

<210> 110

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<211> 15
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<212> PRT

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<223> K is blocked with Fmoc

<220>

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<400> 110

Lys Asp Pro Val Met Thr Gly Arg Thr Gly Xaa Pro Lys Gly Tyr 1 5 10 15

<210> 111

<211> 13

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<210> 112

<211> 15

<212> PRT

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<400> 113

<223> X is epsilon aminocaproic acid

<210> 114

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<211> 13
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<400> 115

Lys Asp Pro Xaa Thr Gly Arg Thr Gly Xaa Pro Lys Gly Tyr 1 5 10

<210> 116

<211> 13

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<223> X is 4-aminobutyric acid

<400> 116

Lys Asp Pro Xaa Thr Gly Arg Thr Gly Pro Lys Gly Tyr 1 5 10

<210> 117

<211> 13

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<223> X is 8-aminobutyric acid

<400> 117

<210> 118

<211> 17

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<220>

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Lys Asp Xaa Xaa Gly Val Met Thr Gly Arg Val Gly Xaa Pro Lys Gly 1 5 10 15

Tyr

- <210> 119
- <211> 17
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- <223> Synthetic peptide substrate
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- <221> MOD_RES
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Lys Asp Xaa Xaa Gly Val Met Thr Gly Arg Val Gly Xaa Pro Lys Gly 1 5 10 15

Tyr

<210> 120

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Lys Asp Xaa Xaa Gly Val Met Thr Gly Arg Ala Gly Xaa Pro Lys Gly 1 5 10 15

Tyr

<210> 122

<211> 26

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<220>

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Pro Lys Gly Tyr Gly Xaa Pro Lys Gly Tyr
20 25

<210> 123

<211> 20

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<223> L is D form

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<223> F is D form

<220>

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<400> 123

Lys Asp Pro Xaa Gly Ser Glu Val Lys Leu Asp Ala Glu Phe Gly Xaa 1 5 10 15

Pro Lys Gly Tyr 20

<210> 124

<211> 20

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- <220>
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<400> 124

Lys Asp Pro Xaa Gly Ser Glu Val Lys Leu Asp Ala Glu Phe Gly Xaa 1 5 10 15

Pro Lys Gly Tyr 20

<210> 125

<211> 21

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<400> 125

Lys Asp Xaa Xaa Gly Ser Glu Val Asn Leu Asp Ala Glu Phe Gly Xaa 1 5 10 15

Pro Lys Asp Asp Tyr 20

<210> 126

<211> 21

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Pro Lys Asp Asp Tyr
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<210> 127
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<400> 127

Lys Asp Xaa Xaa Gly Ser Glu Val Lys Met Asp Ala Glu Phe Gly Xaa 1 5 10 15

Pro Lys Asp Asp Tyr 20

<210> 128

<211> 21

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Lys Asp Xaa Xaa Gly Ser Glu Val Lys Met Asp Asp Glu Phe Gly Xaa 1 5 10 15

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Pro Lys Asp Asp Tyr
<210> 129
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Pro Lys Asp Asp Tyr

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Gly Xaa Pro Lys Asp Asp Tyr 20

<210> 131

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1 5 10 15

Thr Gly Xaa Pro Lys Asp Asp Tyr 20

<210> 132

<211> 18

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Asp Tyr

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<210> 135

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<211> 11

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Lys Asp Xaa Xaa Xaa Ser Ser Gln Tyr Ser Asn Xaa Xaa Pro Lys 1 5 10 15

<210> 143

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1 5 10 15
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<223> Synthetic peptide substrate

<220>

<221> MOD_RES

<222> (3)..(3)

<223> X is Aib

<400> 148

Lys Asp Xaa Gly Ser Ser Ile Tyr Ser Gln Gly Pro Lys 1 5 10

<210> 149

<211> 11

<212> PRT

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<220>

<223> Synthetic peptide substrate

<220>

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<222> (3)..(3)

<223> X is Aib

<400> 149

Lys Asp Xaa Ser Ser Ile Tyr Ser Gln Pro Lys 1 5 10

<210> 150

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<211> 20
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<400> 150
Lys Asp Pro Xaa Gly Ser Glu Val Asn Leu Asp Ala Glu Phe Gly Xaa
Pro Lys Gly Tyr
            20
<210> 151
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<211> 18

<212> PRT

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<223> X is epsilon aminocaproic acid
<400> 151
Lys Asp Pro Xaa Gly Leu Glu His Asp Gly Ile Asn Gly Xaa Pro Lys
Gly Tyr
<210> 152
<211> 18
<212> PRT
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<213> Artificial

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<220>
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<223> X is epsilon aminocaproic acid
<400> 152
Lys Asp Pro Xaa Gly Leu Glu Thr Asp Gly Ile Asn Gly Xaa Pro Lys
                                    10
Gly Tyr
<210> 153
<211> 18
<212> PRT
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<220>

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<222> (4)..(4)

<223> X is epsilon aminocaproic acid

<400> 153

Lys Asp Pro Xaa Gly Trp Glu His Asp Gly Ile Asn Gly Xaa Pro Lys
1 10 15

Gly Tyr

<210> 154

<211> 15

<212> PRT

<213> Artificial

<220>

<223> Synthetic peptide substrate

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<223> K is blocked with Fmoc

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<223> X is episilon-aminocaproic acid

<220>

<221> MOD_RES

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<223> X is epsilon aminocaproic acid

<400> 154

Lys Asp Pro Xaa Gly Tyr Val His Asp Gly Xaa Pro Lys Gly Tyr 1 5 10 15

<210> 155

<211> 18

<212> PRT

<213> Artificial

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<223> Synthetic peptide substrate

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<223> K is blocked with Fmoc

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<220>
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<400> 155
Lys Asp Pro Xaa Gly Tyr Val His Asp Gly Ile Asn Gly Xaa Pro Lys
Gly Tyr
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<211> 14
<212> PRT
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<223> X is epsilon aminocaproic acid

<400> 156

Lys Asp Pro Xaa Gly Tyr Val His Asp Ala Pro Lys Gly Tyr 1 510

<210> 157

<211> 16

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<220>

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<223> X is epsilon aminocaproic acid

<400> 157

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Lys Asp Pro Xaa Gly Ile Glu Pro Asp Ser Gly Xaa Pro Lys Gly Tyr
<210> 158
<211> 18
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<400> 158
Lys Asp Pro Xaa Gly Pro Leu Gly Ile Ala Gly Ile Gly Xaa Pro Lys
                                    10
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Gly Tyr

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<210> 159
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<223> X is epsilon aminocaproic acid

<400> 159

Lys Asp Pro Xaa Gly Ser Gln Asn Tyr Pro Ile Val Gln Gly Xaa Pro 1 5 10 15

Lys Gly Tyr

<210> 160

<211> 18

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<212> PRT
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<213> Artificial

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<223> Synthetic peptide substrate

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<223> X is episilon-aminocaproic acid

<220>

<221> MOD_RES

<222> (4)..(4)

<223> X is epsilon aminocaproic acid

<400> 160

Lys Asp Pro Xaa Gly Glu Asp Val Val Cys Cys Ser Gly Xaa Pro Lys 1 5 10 15

Gly Tyr

<210> 161

<211> 10

<212> PRT

<213> Artificial

<223> Peptide spacer

<400> 161

Asp Gly Ser Gly Gly Gly Glu Asp Glu Lys 1 5 10

<210> 162

<211> 7

<212> PRT

<213> Artificial

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<223> peptide spacer

<400> 162

Lys Glu Asp Gly Gly Asp Lys 1 5

<210> 163

<211> 8

<212> PRT

<213> Artificial

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<223> Peptide spacer

<220>

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<223> Spacer

<400> 163

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Asp Gly Ser Gly Glu Asp Glu Lys
<210> 164
<211> 9
<212> PRT
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<400> 164
Lys Glu Asp Glu Gly Ser Gly Asp Lys
<210> 165
<211> 8
<212> PRT
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<223> protease inhibitor
<400> 165
Asp Val Val Cys Cys Ser Met Ser
<210> 166
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<211> 7

<212> PRT

<213> artificial

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<223> protease inhibitor

<220>

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<222> (6)..(6)

<223> d amino acid

<400> 166

Asp Val Val Cys Pro Met Ser 1 5

<210> 167

<211> 9

<212> PRT

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<220>

<221> MOD_RES

<222> (5)..(5)

<223> X is norleucine

<400> 167

Asp Ala Ile Pro Xaa Ser Ile Pro Cys
1 5

<210> 168

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<211> 11
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<212> PRT

<213> Artificial

<220>

<223> Synthetic peptide substrate

<220>

<221> MOD_RES

<222> (5)..(5)

<223> X is norleucine

<400> 168

Asp Ala Ile Pro Xaa Ser Ile Pro Lys Gly Tyr
1 5 10

<210> 169

<211> 11

<212> PRT

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<223> K is derivatized with fluorophore

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<223> D is derivatized with fluorophore
<400> 169
Asp Glu Val Asp Gly Ile Asp Pro Lys Gly Tyr
<210> 170
<211> 12
<212> PRT
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<223> Artificial = synthetic protease indicator
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<222> (10)..(10)

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Pro Asp Glu Val Asp Gly Ile Asp Pro Lys Gly Tyr
<210> 171
<211> 12
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<223> X is norleucine (Nlu)
<220>
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<222> (10)..(10)
<223> K is derivatized with fluorophore
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<223> K is blocked with Fmoc

<220>

<221> MOD_RES

<222> (1)..(1)

<223> K is derivatized with fluorophore

<400> 171

<210> 172

<211> 12

<212> PRT

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<223> Synthetic peptide substrate

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<223> K is derivatized with fluorophore

<220>

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<223> K is derivatized with fluorophore

<220>

<221> MOD_RES

<222> (6)..(6)

<223> X is norleucine (Nlu)

<400> 172

Lys Asp Ala Ile Pro Xaa Ser Ile Pro Lys Gly Tyr 1 5 10

<210> 173

<211> 11

<212> PRT

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<223> Artificial Sequence = synthetic protease indicator

<220>

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<222> (1)..(1)

<223> D is blocked wiht Fmoc

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<220>
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<223> X is norleucine (Nlu)

<220>

<223> K is derivatized with fluorophore

<400> 173

Asp Ala Ile Pro Xaa Ser Ile Pro Lys Gly Tyr 1 5 10

<210> 174

<211> 14 <212> PRT

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Lys Asp Asx Asp Glu Val Asp Gly Ile Asp Pro Lys Gly Tyr
               5
<210> 175
<211> 14
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<223> K is derivatized with fluorophore

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<221> misc_feature
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<223> K is derivatized with fluorophore
<400> 175
Lys Asp Asx Asp Glu Val Asp Gly Ile Asp Pro Lys Gly Tyr
<210> 176
<211> 14
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Lys Asp Asx Asp Glu Val Asn Gly Ile Asp Pro Lys Gly Tyr
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<220>
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<221> misc_feature

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<223> K is derivatized with fluorophore

<400> 177

Lys Asp Asx Asp Glu Val Asn Gly Ile Asp Pro Lys Gly Tyr 1 5 10

<210> 178

<211> 13

<212> PRT

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<223> K is blocked with Fmoc

<220>

<221> MOD_RES

<222> (11)..(11)

<223> K is derivatized with fluorophore

<400> 178

Lys Asp Asx Glu Val Asp Gly Ile Asp Pro Lys Gly Tyr

1 5 10

<210> 179

<211> 13

<212> PRT

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<223> K is derivatized with fluorophore

<220>

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<222> (11)..(11)

<223> K is derivatized with fluorophore

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<210> 180

<211> 16

<212> PRT

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<223> K is derivatized with fluorophore
<400> 180
Lys Asp Asx Gly Asp Glu Val Asp Gly Ile Asp Gly Pro Lys Gly Tyr
<210> 181
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<211> 18

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<212> PRT
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<222> (16)..(16)

<223> K is derivatized with fluorophore

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<223> X is episilon aminocaproic acid

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Lys Asp Asx Xaa Gly Asp Glu Val Asp Gly Ile Asp Gly Xaa Pro Lys
Gly Tyr
<210> 182
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<223> X is episilon aminocaproic acid
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<223> K is derivatized with fluorophore

<220>

<221> MOD_RES

<222> (16)..(16)

<223> K is derivatized with fluorophore

<400> 182

Lys Asp Asx Xaa Gly Asp Glu Val Asp Gly Ile Asp Gly Xaa Pro Lys 1 5 10 15

Gly Tyr

<210> 183

<211> 13

<212> PRT

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<223> K is derivatized with fluorophore
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<223> K is derivatized with fluorophore
<400> 183
Lys Asp Tyr Asx Ala Asp Gly Ile Asp Pro Lys Gly Tyr
<210> 184
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<211> 13

<212> PRT

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<400> 184
Lys Asp Asx Glu Val Asp Gly Ile Asp Pro Lys Gly Tyr
<210> 185
<211> 12
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<223> K is blocked with Fmoc

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<222> (10)..(10)

<223> K is derivatized with fluorophore

<220>

<221> MOD_RES

<222> (6)..(6)

<223> X is norleucine (Nlu)

<400> 185

Lys Asp Ala Ile Pro Xaa Ser Ile Pro Lys Gly Tyr 1 $$ 5 $$ 10

<210> 186

<211> 18

<212> PRT

<213> Artificial

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<220>

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<223> X is episilon aminocaproic acid

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<223> X is episilon aminocaproic acid

<400> 186

Lys Asp Asx Xaa Gly Asp Glu Val Asp Gly Ile Asp Gly Xaa Pro Lys 1 5 10 15

Gly Tyr

<210> 187

<211> 18

<212> PRT

<213> Artificial

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<223> Synthetic peptide substrate

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<221> misc_feature

<223> Artificial/Unknown = synthetic protease indicator

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<222> (1)..(1)

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<221> MOD_RES

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<223> K is derivatized with fluorophore

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<220>

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<220>

<221> MOD_RES

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<223> X is episilonaminocaproic acid

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Lys Asp Asx Xaa Gly Asp Glu Val Asp Gly Ile Asp Gly Xaa Pro Lys 1 5 10 15

Gly Tyr

<210> 188

<211> 14

<212> PRT

<213> Artificial

<220>

<223> Synthetic peptide substrate

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<220>
<221> MOD_RES
<222> (12)..(12)
<223> K is derivatized with a fluorophore
<400> 188
Lys Asp Asx Asp Glu Val Asp Gly Ile Asp Pro Lys Gly Tyr
<210> 189
<211> 8
<212> PRT
<213> Artificial
<220>
<223> Synthetic peptide substrate
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<221> misc_feature
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Gly Asp Glu Val Asp Gly Ile Asp
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1 5

<210> 190

<211> 4

<212> PRT

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<223> Synthetic peptide substrate

<220>

<221> misc_feature

<223> Artificial/Unknown = tetrapeptide core

<220>

<221> MOD_RES

<222> (3)..(3)

<223> X is alpha aminobutyric acid (Aib)

<400> 190

Lys Asp Xaa Gly

1

<210> 191

<211> 5

<212> PRT

<213> Artificial

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<223> Synthetic peptide substrate

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<220>
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<222> (4)..(4)
<223> X is episilonaminocaproic acid
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Lys Asp Xaa Xaa Gly
1
<210> 192
<211> 4
<212> PRT
<213> Artificial
<220>
<223> Synthetic peptide substrate
<220>
<221> misc_feature
<223> Artificial/Unknown = CDR domain
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<400> 192
Gly Xaa Pro Lys
<210> 193
<211> 14
<212> PRT
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<220>
<223> Synthetic peptide substrate
<220>
<221> misc_feature
<223> Artificial/Unknown = synthetic protease indicator
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<221> MOD_RES
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<223> K is blocked with Fmoc
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<222> (1)..(1)
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<223> K is derivatized with fluorophore

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<221> MOD_RES
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<223> K is derivatized with fluorophore
<400> 193
Lys Asp Asx Asp Glu Val Asp Gly Ile Asp Pro Lys Gly Tyr
<210> 194
<211> 14
<212> PRT
<213> Artificial
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<223> Synthetic peptide substrate
<220>
<221> misc_feature
<223> Artificial/Unknown = synthetic protease indicator
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<221> MOD_RES
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<223> K is derivatized with fluorophore

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<221> MOD_RES
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<223> K is derivatized with fluorophore
<400> 194
Lys Asp Asx Asp Glu Val Asp Gly Ile Asp Pro Lys Gly Tyr
<210> 195
<211> 18
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<213> Artificial
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<223> Synthetic peptide substrate
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<221> misc_feature
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<223> K is derivatized with fluorophore
<220>
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Leu Glu Thr Asp Gly Ile Asn 1 5

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Tyr Val His Asp Gly

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Tyr Val His Asp Ala 1 5

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Ser Glu Val Lys Leu Asp Ala Glu Phe 1 5

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Lys Asp Pro Gly Thr Gly Arg Thr Gly Pro Lys Gly Tyr 1 5 10

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Pro Lys Gly Tyr 20

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Pro Lys Asp Asp Tyr
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Gly Tyr

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Gly Tyr

- <210> 244
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<210> 248

<211> 18

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Gly Tyr
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-204-

1 5 10 15

Gly Tyr

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Pro Lys Gly Tyr

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15

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PRT

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Lys Gly Tyr